(1958, Chem. Reviews, 58: 321-401). Polyphosphoric acid is relatively inexpensive, requires no special apparatus and is safe enough to be used by the average undergraduate student. With this in mind, we have attempted to design an experiment which makes use of polyphosphoric acid.

In designing such an experiment we considered the fact that the preparation and reactions of heterocyclic compounds are often neglected in undergraduate laboratories. Schimelpfenig (1959, Journ. Chem. Education, 36: 570) has discussed the undergraduate laboratory synthesis of heterocyclic compounds and from that it is apparent that the few such experiments available either require an excessive amount of time or lead to relatively unimportant classes of compounds.

It has been found that the preparation of 2-phenylindole could be carried out in a simple manner, in a short period of time, using the important polyphosphoric acid to give a good yield of a solid compound which is a member of an important class of heterocyclic compounds. The procedure adopted is based on a modification of work reported by Kissman, Farnsworth and Witkop (1952, Journ. Amer. Chem. Soc., 74: 3948-3949).

Experimental Procedures

Preparation of 2-Phenylindole.—Heat a mixture of 5.6 g. of acetophenone and 5.0 g. of phenylhydrazine on a boiling water bath for 30 minutes. Add this hot mixture to 60 g. of polyphosphoric acid which has been preheated on the boiling water bath. Stir this mixture for 5 minutes and pour into 250 ml. of ice water. Stir to insure complete solution of the polyphosphoric acid and filter to collect the precipitated 2-phenylindole. Wash the solid with water and dry. The solid can be recrystallized from aqueous-ethanol if necessary.

In a typical performance the melting point of the 2-phenylindole was 181-184° and the yield was 80%.

The author would like to acknowledge many helpful discussions with Dr. Harry P. Schultz.—Frank D. Popp, Department of Chemistry, University of Miami.

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A Note on the Feeding Habits of the West Indian Sea Star *Oreaster reticulatus* (Linnaeus)[1]

The large sea star *Oreaster reticulatus* (Linnaeus) is a common West Indian species extending from South Carolina to Brazil and east to the Cape Verde Islands (Clark, 1933. Sci. Surv. P.R. *16*(1): 1-147). Dried, it is sold in curio shops throughout its range. Despite its common occurrence there is nothing recorded about its food habits. I have observed *Oreaster* many times with its stomach everted into small depressions in the coralline sand and *Thalassia* bottoms on which it lives. Examination revealed nothing either in the depression or in the stomach which might be of food value. Possibly any organic material close to the stomach wall is digested in this manner.

Recently I saw an *Oreaster* in Biscayne Bay (Florida) eating a small unattached sponge of the genus *Ircinia* (probably *Ircinia fasciculata*). The sea

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star was humped over the sponge and had everted its stomach onto a portion of it. The part of the sponge covered by the stomach was very flaccid, somewhat lighter in color than the rest of the animal, and had a shredded appearance. The remaining portion was firm and appeared alive. Dr. John Randall of this laboratory has written me that in the Virgin Islands he saw an *Oreaster* eating an unidentified sponge.

Although sponges are rarely eaten by other animals, several starfish are known to feed on them. Rodenhouse and Guberlet (1946. Univ. Wash. Publ. Biol. *12*(3): 21-48) mention that *Pteraster tesselatus* Ives eats sponges, and MacGinitie and MacGinitie (1949. Natural history of marine animals. McGraw-Hill, New York) list sponges as part of the diet of *Patiria miniata* (Brandt). Both species occur on the Pacific coast of the United States. The British sea star *Asterina gibbosa* (Pennant) is reported by MacBride (1909. The Cambridge natural history, *1:* 427-622. Macmillan, London) to eat sponges and ascidians.—LOWELL P. THOMAS, Marine Laboratory, University of Miami.

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LETTER TO THE EDITOR

FILE CABINET RESEARCH: THE ADIPOSE TISSUE OF AMERICAN SCIENCE TODAY

Most of us can remember times when financial support for scientific investigations was difficult to obtain. Many studies were completed only by virtue of the enthusiasm and zeal of the individual workers. These toilers were obliged to substitute ingenuity for equipment, free personal time for grants-in-aid, and vacations for stipends.

But there was an intimacy with the project and insight into the data which, coupled with a keen urge to reveal any advancement in understanding, resulted in well-prepared, detailed and, in most cases, highly intelligible additions to the literature.

Following the Second World War, there was a surge of cash for research unprecedented in this country. To a certain extent stimulated by the dramatic results of research that tangibly affected the outcome of conflict, governmental agencies, industry and private sources made available enormous sums. One of the results of so much so soon was the change in posture of many university departments. They now became oriented to research as never before, some of them largely assuming the status of creatures of contractural arrangements.

But what about quality? Were there seasoned and mature men of science available to transform this cash, through the alchemy of skill, intuition, drudgery and experience into notable advancement? The answer is a qualified no. Although the race to supply scientists to meet the challenge has been a good one, there has been a lag. This plus the instinctive desire for more of the easily available dollars on the part of many administrators has resulted in a headlong series of undertakings that have all the characteristics of empire building.